

Building Number:	614
Area:	West Barracks
Date of Construction:	1904
Period of Significance:	1900-1919 (per HSR Part One)
Historic Use:	Hospital
Current/Recent Use:	Offices
Occupancy:	I-1.2 then B
Hazard Level:	Not Available
Number of Floors:	Three stories
Basement Floor:	7,026 sq. ft. (per January 2000 SERA report)
First Floor:	8,082 sq. ft. (per January 2000 SERA report)
Second Floor:	8,082 sq. ft. (per January 2000 SERA report)
Third Floor:	6,064 sq. ft. (per January 2000 SERA report)
Exterior Materials:	Painted red brick, wood tongue and groove at porches, wood shingle siding at dormers.



Task One: Conditions Assessment

Site Context

The hospital sits slightly higher than the other buildings in the West Barracks. It faces the Infantry Barracks (Building #607) across Barnes Road. As the westernmost building of the area, the hospital's west elevation is visible to travelers on I-5 from both directions. Its close proximity to the freeway subjects the building to air and noise pollution. The mix of air pollutants with rain and direct sun exposure has caused the west side of the building to deteriorate faster than the east side.

Vehicular Circulation

Vehicular access is from Barnes Road on the east side of the building. There is parking on the street. Access is also provided on the south side of the Annex, but no parking is provided. Another road wraps the building from the north to the west of the building and continues south, but is separated from the building by a chain-link fence.

Pedestrian Circulation

There are concrete walks to the main entry, on the east to the north entry and to the south entry of the Annex. A walk wraps around to the west side but ends at the west basement entry. Another walk begins at the south porch on the west side but only



extends a short distance to the south. The walks are in fair condition; they are cracked in many places and have biological growth.

Exterior Assessment of Main Hospital Building

- **Summary:** The Post Hospital or Barnes Hospital has undergone many changes in the last years. The porches were enclosed in the 1930's to increase bed space. The most noticeable change is the Annex that was originally located to the west but was moved to the south end of the building in 1952 when I-5 was constructed. The hospital is significant in that it was a built from a plan provided by the Surgeon General's Office, not the Quartermaster's Office as was typical. The layout reflects the new philosophies being practiced in medicine at the time, particularly in treating tuberculosis. Elements such as the natural ventilation system and other features of the plan relating to patient care are significant.

The porches are in poor condition with significant deterioration that may be compromising their structural integrity. The red brick walls have been painted or treated with a red mortar wash. The wood siding at the porches and the wood trim are in fair to poor condition. The collection and drainage system directing water from the roof away from the building has deteriorated and the surrounding grade does carry run-off away from the structure. This has contributed to the demise of some areas of the structure. Other building elements, particularly the stair penthouses at the roof, also inhibit proper draining.



The front porch of the hospital is in poor condition. The gutters are not working properly and the concrete steps are broken.

- **Site:** A chain link fence surrounds the building on the west and north sides. The landscaping features overgrown grass and bushes. The holly trees at the east side entry are overgrown and need to be trimmed. The concrete stairs are in fair

condition and the railing does not meet current codes. The west side drainage is poor and the east side drainage is fair.

- **Foundation:** The foundation is brick and rubble stone with rusticated ashlar sandstone facing laid in a four-height pattern. A heavy, rusticated sandstone belt course circles the building above the foundation. In general, the foundation is in fair condition with some biological growth near grade and some red staining from the brick deteriorating above.



The west elevation of the hospital shows the location of the walkways to the Annex building.

- **Walls:** The exterior walls of the main building are red brick laid in a common bond pattern. The brickwork is in fair to poor condition and has either been painted or treated with a mortar wash that has altered the original character of the mortar joints. This has trapped moisture within the wall and is causing deterioration of the brick face and mortar. There is no apparent damage due to displacement or settlement to the main body of the Hospital. The west side of the main building reveals where the connecting walkways to the Annex were originally located. Ghosts of the walkway outlines and railing attachments at the second floor are visible. The openings have been filled in with brick and matching windows installed. The mortar joints, however, do not match at these locations of infill. At the south corner, some efflorescence and mortar loss are evident where a downspout appears to have been removed. The north corner is in better condition, but shows some mortar loss. The ward wings are brick as well and have been painted white at what was the exterior but is now the inside of the enclosed porch.

- Windows: (See interior notes.) The exterior wood trim is in fair condition. The sandstone sills are in poor condition with portions that are spalling and blistering. The enclosed north and south porches have sixteen-over-sixteen lite windows with sliding middle sashes. In general, they are in fair condition.



The exits from the porches are in poor condition.

- Doors: The porch exterior door on the southeast side is two panel with a four-lite window in poor condition. The front porch doors are double doors, with two lower panels and upper windows. They are in fair condition. The north entry doors into the auditorium are double doors with two panels and upper windows. They are in fair condition. The other doors to the porches are three-panel with a window above and are in fair condition. The exit doors on the west side are flush doors in poor condition. The basement doors to the boiler room on the west elevation are in poor condition and do not contribute to the character of the building. The basement entry doors at the south wing are in fair to poor condition. They are wood paneled doors with upper windows that have been covered with plywood.
- Trim: The wood fascia and eave soffit board are in poor condition. The damage to the soffit boards indicates water damage from the gutters. The belly band and cap need to be refurbished and replaced in some locations.
- Roof, Gutters and Eaves: The eaves are boxed-out with painted wood soffit boards that are in poor condition. The built-in gutters and roof leaders at the corners are in fair to poor condition. There is corrosion and evidence of leaking from the gutters. The northwest leader on the north porch is corroded as is the cast iron riser from the subsurface drainage system. The structure was re-roofed in the last year with asphalt composition shingles and is in good condition. In



general, the step flashing between the porch and the brick walls of the Annex or main building is in poor condition, as is the painted copper flashing at cornice lines. There are penthouses above the exit stairs on the west side at both the north and south porches. These are not contributing and do not comply with current codes. Other options for egress should be explored.



The south porch where it meets the relocated Annex shows a lot of damage.

- Porches:** The porches are supported on masonry piers with skirting in between. The skirting is a painted wood frame with painted metal screen panels. The bottom rail sits on grass or a concrete curb and tends to wick up moisture. In general the piers and skirting are in fair to poor condition and are the worst on the west side. On all the porches the structure is sagging in between the piers and the southeast porch is showing signs of separating from the Annex building. These conditions need to be investigated further. The porch floor is painted tongue-and-groove wood in fair condition with a considerable slope to the outside for drainage. The siding is painted vertical tongue-and-groove in fair to poor condition. There is biological growth present and the paint is peeling. The bottom sill plate is in poor condition on all the porches. The wood columns are in fair to poor condition, with pronounced deterioration. The bellyband and cap are in fair to poor condition. The west side of the north porch has a birdhouse on the northernmost column on the first floor. The west elevation of the south ward wing porch is in the worst condition perhaps due to the close proximity of the freeway and the exposure to the pollutants created by the cars. In conjunction with precipitation, that face of the building is bombarded with acid wash as the rain mixes with air pollution. In addition, there are no trees or vegetation on that side of the building to protect it from the afternoon sun.
- Entries:** The front porch is 6" to 8" below the first floor level. The front porch is in fair to poor condition and needs a new gutter and downspout system. The masonry piers are in fair to good condition as is the infill skirting between the piers. The concrete stairs are in poor condition and have split in two. There is no handrail and the railings do not meet current codes. There is no center rail despite the width of the stairs. The metal railings are rusting and staining the wood at the



brackets at the columns. The east and north porch railings have cast-iron newel posts decorated in a spiral pattern. The bellyband at the front porch is in fair to poor condition. The portion just above the top concrete tread has some rust staining. The decking is tongue and groove painted wood that is in poor condition and should be replaced. The columns are painted wood with painted cast iron bases. The columns are in poor condition and some capitals are broken or missing. The bases are corroding. The porch roof is EPDM roofing material that appears to be poorly installed, possibly directly over the original metal roof. The built-in gutters are leaking in the middle. There is deterioration at the roof due to blockages at roof leaders. Corrosion is present at the low point of the gutter. The painted copper flashing is in poor condition.

The north porch stairs and cast iron railings are in poor condition. A railing on one side is missing and they do not meet current codes. Wood infill panels underneath the stair have fallen and are in poor condition. There is a step up from the north entry landing into the auditorium.

The exit stairs from the sun porches are in poor condition. They are open-riser wood stairs on concrete stoops. The railings are wood 2x4 or pipe railings that do not meet current codes and are in poor condition. The west side basement service entrance stairs are concrete with no handrails and are in poor condition. The landing at the bottom of the stair does not appear to have a drain and is full of vegetation and debris. The basement entry on the west side of the south wing is concrete stairs down to the entry with no handrails. The concrete is in fair condition. The drain at the bottom landing needs to be checked.

- Dormers: The dormers are roofed with asphalt composition shingles and sided with painted slate shingles. There is evidence of the old roof leaking on the interior of the building (see interior notes for third floor). The slate shingle siding is in fair condition with a lot of biological growth at the junction of the wall and the roof. The presence and condition of flashing at this junction of wall and roof needs to be investigated. The windows are paired painted wood four-light casements. Many of them are missing, broken, blocked by plywood, or missing muntins.
- Miscellaneous: There are many exterior surface mounted and loose utilities including phone cable, electrical wiring, conduit, plumbing, and electrical junction boxes. There is jacking occurring at conduit locations from corrosion of the connections to the brick wall. There is a plumbing vent stack on the outside of the wall at the south end of the building. At the main entry porch there are two non-contributing light fixtures that are surface mounted on electrical junction boxes attached to the gutters. Flag holders are mounted on the columns. The



brick chimneys are in fair condition but may require seismic bracing. The black sheet metal ventilators on the roof are in fair condition. The exterior light fixtures in general do not contribute to the character of the building.

Exterior Assessment of Hospital Annex

- **Site**: A tree is located too close to the southwest corner of the building.
- **Foundation**: Because this building was moved from its original location, the foundation is newer and is a mixture of ashlar sandstone, brick and concrete with a cement parge coating. The stone and brick need some repair. The stone is stained with biological growth, particularly on the north side of the building. Red dust from the deteriorating brick has also stained the stone and concrete. There is cracking in the parge coat. The north side of the building has been attached to the south ward wing of the main hospital and the corners where the wall meets the porch are in poor condition, especially near the downspouts. There is some efflorescence and biological growth on the brick and stone there.
- **Walls**: The exterior walls of the Annex are red brick laid in a common bond pattern. The brickwork is in fair to poor condition and has been painted. This has trapped moisture within the wall and is causing deterioration of the brick face and mortar. Many patches are visible in the walls from the relocation. They are very apparent as the brick and the pointing is poorly done and does not match. Diagonal cracks have propagated from a number of openings, and again, of repairs were poorly executed and presumably date from when the building was relocated. Efflorescence and deteriorating mortar are present at the north and south corners of the west side of the building.
- **Windows**: The basement windows are center pivot hoppers with security bars on the inside and outside of the window. The windows on the first and second floor and in the third floor gable ends are four-over-four double hung windows. The sandstone sills on these windows need to be cleaned and evaluated for more extensive treatments. The westernmost window on the south side appears to have originally been a door that was filled in with a window and new brick. The vent on the next window to the east was filled in. On the north side, the basement windows and the first floor and second floor windows where the porch wall meets the Annex wall have been removed and are filled in with brick.
- **Doors**: The west side doors have been the entry location of choice for transients trying to get into the building. As a result the glass is broken and the doors have been boarded up. Both first and second floor doors are in poor condition but are contributing to the character of the building. The south side doors are newer paneled double doors. Unlike the other doors, these doors have panels that are



vertical, and the windows above are also boarded over for security. The exterior is painted and the interior is stained. The six-lite transom above is intact. First, second, and third floor doors are wood paneled with upper windows and retrofitted panic hardware.

- Porch: The west side porch is in very poor condition. The concrete piers (footings) are in fair to poor condition. The wood stairs are pulling away from the building. The wood columns and cast iron pipe railings are in poor condition. The painted tongue and groove ceiling is in fair condition having been protected from the weather for the most part. A closer inspection of the ceiling materials should be done to verify their condition. The roof has been recently replaced with the same asphalt composition shingles used on the main building and is in good condition. The built-in gutters and downspout system are in poor shape and need to be replaced. Corrosion, water damage, debris build-up, and new plant growth are visible.
- Trim: The fascia, soffits, and eave returns are in fair to poor condition and will require some repair.
- Roof, Gutters and Eaves: The roof has been recently replaced with the same asphalt composition shingles used on the main building and is in good condition. The built-in gutters and the downspouts need major repair and the gutter leaks in many places. The downspouts are corroded or misaligned and the subsurface standpipe is also severely deteriorated. The eaves are in fair to poor condition requiring major repair. The painted copper flashing is in poor condition.
- Entries: The concrete on the south entry stairs is spalling and jacking from exposed re-bar. There is also biological growth on the stairs. The cast iron pipe railing does not meet current codes and is in poor condition.
- Dormers: There are three dormers on the south side of the building. They all have new roofs and painted slate shingle siding in fair condition. There is a lot of biological growth on the shingles near the roof. The windows are paired six-over-six double hung windows on the two outside dormers and a single four-over-four double hung on the middle dormer. On the north side are two dormers at either end. The middle dormer is a doorway to the roof and access to the main building attic space. They are in similar condition to the other dormers.
- Miscellaneous: The fresh air vents under the windows have been blocked on the interior, but most are still visible from the outside. The chimneys may need seismic braces. The interior natural ventilation system is intact although hindered by the placement of partition walls. This natural ventilation system is a major



characteristic of sanatoria and reflects the philosophies of medical treatment of the time. Exterior light fixtures are not historic and should be replaced.

Interior Assessment

(Room numbers are as designated on the 1952 floor plans by the Post Engineer.)

- General: The interior finishes and plan layout are remarkably intact.
- Significant Features and Typical Materials: Pressed tin ceiling tile and cove ceilings. Plaster finishes and wood strip floors. Paneled doors.
- Special or unusual conditions: Egress issues including fire separation wall placement and egress needs should be resolved. The interior stair is leaning and should be evaluated by a structural engineer.

Basement Conditions

- General: The basement was remodeled in 1939 to divide former storage space into examination and treatment rooms, a sick call room, pharmacy, toilets, and other spaces.
- Floor: Typically the floor is scored concrete and is generally in fair condition. There is some water staining on the floors. One room in the Annex basement has a wood strip floor in fair condition. The surgeries and examination rooms and part of the corridor have 8” or 9” square vinyl tiles that may contain asbestos. These rooms also have painted 6” square metal tile base and cove most of which are missing. Some rooms have floor drains. The floor in Room 6, the boiler room, floor is lower than the surrounding rooms. Some of the rooms have a painted concrete floor, on most the paint is wearing off. Room 15 was a latrine at one time. All of the fixtures are gone but the plumbing and the floor drains remain.
- Walls: The walls are painted concrete or brick and generally in fair condition. In the north part of the basement the brick and rock meet in an interlocking pattern. Some rooms have water damage on at least one wall. There are plaster walls and areas of black and white 4” square ceramic tile in the surgeries and exam rooms. Similar tile is found in the restrooms at the sink locations. The plaster walls are 50% covered with minor cracking. The Annex has a few rooms that differ in finishes from the main building.
- Ceiling: The ceiling is plaster or gypsum wallboard and generally in fair condition. A couple of rooms have soffits. The north stair ceiling is pressed tin



- tile. There is minor cracking in the plaster ceiling of the restrooms. In the Annex, the ceiling is a painted wood panel system in fair condition.
- Windows: The windows are painted wood, the majority of which are pairs of one-over-one in-swinging casements in fair condition. The glazing of a few windows is painted, broken, or covered with plywood. There are two-over-two double hung windows in the surgeries and examination rooms. Some of the windows have broken glazing. The windows in Room 9 are three-over-three double hung windows. The windows in the bathroom have obscure glass. The windows in the Annex are metal frames on a center pivot with security bars on the inside and the outside of the frame. The window openings on the north side of the building have been filled in with concrete.
 - Doors: The doors are five-panel painted wood doors in fair to good condition. Most of the doors retain their period hardware. There are some flush doors that are not contributing to the character of the building. Some doors have been modified with panels cut out or made into Dutch doors. The restroom doors are flush with period push/pull hardware. The corridor doors are unique with a width of four feet and have original heavy-duty brass double acting hinge hardware. They are flush with a four-lite window with obscure glass. There is a metal grate sliding door over Room 15. The exit doors on the south side of the Annex are newer and non-contributing. They are boarded up and chained.
 - Stairs: The north stair is wood tread and riser, with vinyl tread and metal nosing over the wood tread. There is a wood 2x railing on one side and 2" diameter handrail on the other. The door placement at the top of the stairs doesn't allow for a proper landing before opening the door. In general the stair does not meet current codes. The south stair is made of wood treads and risers with vinyl tread and metal nosing on top. There is a 2x railing. As with the north stair, the door placement at the top of the stairs doesn't allow for a proper landing before opening the door.



- **Miscellaneous:** The light fixtures are contemporary fluorescent fixtures. There are maybe two original fixtures left. There is a lot of conduit and piping on the walls and ceilings throughout. The piping may be covered in asbestos insulation. Rooms 2 and 21 have painted cast iron ornamental ventilation grilles. There is an ash clean-out in Room 5 for the Furnace Room (Room 6) chimney. Surface mounted conduit is found in the majority of rooms. The boiler is intact in Room 6. Room 9 has built in metal cabinetry, probably from the 1939 remodel of the basement into surgeries and exam rooms. There are radiators throughout. Electrical panels are located in the south part of the corridor. The plumbing fixtures are porcelain fixtures dating from 1939 with nickel-plated faucets.



Room 9 in the basement has metal cabinetry and a tile wall.

First and Second Floor Conditions

- **Floor:** The original sheet linoleum floors have been covered with the same resilient tile flooring as the other non-residential buildings in the West Barracks. Vinyl cove base has been glued directly to the existing wood base. The condition of the original floor is unknown. There are a few missing floor tiles scattered, especially in the toilet rooms and hallways. The entry vestibule has hexagon tile. Room 220 and room 221 both have terrazzo floors and tile bases underneath the typical resilient floor tile. The floors are also slightly higher than the hall floor and have marble thresholds.



The exterior wall of one of the ward wings has paint peeling on the brick wall.

- Walls: In general the walls are lath and plaster. Typical damage includes minor cracking, peeling paint, loosening of the key of the plaster, and minor loss of plaster. Room 103 has been altered by removal of a few walls so that the room extends into the rooms that were probably originally a bathroom and vestibule. The chimneys in this room were removed as well. Columns replaced the walls that were removed. Rooms 104, 116, 202, and 219 were divided with a partition walls. Room 107 had a wall removed. There is a black and white tile wall behind the sinks in the restroom. The ward room walls are masonry with lath and plaster. The corners are curved which is probably a characteristic of the sanatoria of the time. The cracking damage to the plaster is much less in the open ward rooms than in other rooms. The brick walls, now interior walls with the enclosure of the porches, have been painted white and the paint is peeling in some places. Room 207 and Room 105 were the hallways that connected to the walkway to the Annex. The closet made from part of Room 207, the toilet room, was not original.
- Ceiling: The ceilings are typically painted pressed tin tile with a pressed tin cove. Rooms 101 and 117 have a particularly decorative pattern. Peeling paint, holes from surface-mounted conduit and light fixtures, and the separation of tile joints are common conditions of the ceiling system. There are also holes in the ceilings from pipes and conduits. The ceilings in the south part of Room 103 are in particularly poor condition.
- Windows: The typical windows are painted wood two-over-two double hung windows. Some windows have security bars and wood diverters. The jambs of these windows will need repair. Pull down roller shades on the windows should be removed. The window sills slope downward at an angle which is a significant feature of this hospital type.
- Doors: The majority of interior doors are painted wood five panel with three-lite transoms. Most transoms have been fixed in the closed position for fire safety.

Some doors have been altered into Dutch doors or have had panels removed, among other alterations. The glazing has been painted on the toilet room doors on the porches. Double doors at the south vestibules on both floors are missing.

- Trim: Interior trim in general is half-round casing on the doors in the ward rooms. This appears to be a feature of the sanatoria.
- Stairs: The stair up to the second floor has wood risers and treads covered with rubber treads and nosing. The newel post is a built-up square profile. The railing does not meet current codes and no handrail is present.
- Miscellaneous: There are ornamental cast iron grilles on the wall at chase locations with particularly large ones on the ceiling in the ward rooms. Louvers on some of the wall grilles do not function. The majority of the original radiators are intact, and light fixtures are non-contributing fluorescent. The toilet rooms have plumbing fixtures and stalls intact. The stalls are deteriorating from use and wear and many repairs are evident, especially at the legs. They are older fixtures, probably installed in the 1930's. Overhead track with presentation boards have been installed in the ward rooms. They do not contribute to the character of the building. Room 207 has plumbing in it and was probably a toilet for staff.
- Annex: Typical floor finishes in the Annex are resilient floor tile or sheet flooring. The condition of the original flooring underneath is not known. The exception is Room 113 which has 8" square red quarry tile with marble thresholds, a floor drain, and 6" square black tile base in good condition. Other finishes in the Annex are typical of the main hospital building. The walls are plaster and the ceiling is painted pressed tin tile ceiling and cove. In the larger rooms the tile has been pock-marked, for unknown reasons, and in some places it is patched and repaired. There are many pipes penetrating the cove in the rooms. The decorative pattern is different from the main building. Room 112 was a concrete-walled cold-storage room, with a raised and scored floor. The doorway is smaller than most doorways, and a wood five panel door was cut down to fit it. Room 114 has painted tongue and groove wainscot and a lath and plaster ceiling. The stair from the first floor to the second is a nice wood tread and riser with rubber treads and nosing applied on top. It has wood spindles, newel post, and railing, but no handrail. The stringer has a decorative bracket applied at each step. The stair to the third floor is similar but the fire wall covers most of the stair. The doors on the exterior to the north are fit into jack arches with transoms. The interior finishes must have been replaced subsequent to the building being relocated. The damage visible on the exterior is not visible on the interior.



Third Floor Conditions

- **Floor:** Floors are typically fir strip flooring with a wood base and shoe that is in fair to good condition with some minor water staining. The north and south attic spaces have rough wood strip flooring. Room 303, the toilet room, has sheet linoleum and a raised plinth for the toilets with metal nosing at the edge. It was most likely retrofitted to serve as a bathroom.
- **Walls:** The walls are lath and plaster in fair to good condition. The typical damage is from peeling paint, limited areas of loss of key, and some water damage. The hall wall has a 1x6 board chair rail at gurney height. The north attic space walls are finished with 4" ceiling board. The south attic is not finished.
- **Ceiling:** The lath and plaster ceiling is in fair to good condition in the rooms. The ceiling in the hallway is pressed tin tile and cove. The north attic space is finished with 4" ceiling board. The south attic is not finished. The hall ceiling shows typical damage similar to the first and second floors. Plastered areas have water damage, cracking, and some loss of key that probably occurred prior to the roofing being replaced. Room 309 has a large area of ceiling that has lost plaster.
- **Windows:** The attic dormers have four-lite casement windows. The dormer windows in the main building are six-over-six double hung units. Some need repair, like sash cord replacement and sash repair. The glazing is generally intact.
- **Doors:** There is a metal sliding fire door south of the stair in the hall. The doors at the top of the stairs do not comply with current codes. Interior doors are typically wood five-panel doors.
- **Miscellaneous:** The original light fixtures have been replaced with fluorescent fixtures. Surface-mounted conduit, fire alarms, and plumbing are everywhere. Ornamental painted cast-iron grilles are still in place. The pressed metal radiators are still intact. Plumbing fixtures have been removed except for a urinal and a slop sink in Room 303. The old electrical panel is still located in this room. The door to Room 304 is locked.
- **Annex:** The third floor finish is brown sheet linoleum with wood base and shoe. Room 308 and Room 305 have wood strip flooring. Everything else is similar to the main building third floor finishes. Room 307, the toilet room, has painted tongue and groove wainscot. The windows are in fair to good condition. Interior doors are in fair condition, and exterior doors are in poor condition. The hallway has pressed tin tile and cove.



Electrical Evaluation

- **Service:** Overhead service is derived from the site overhead power distribution system. Service entrance conductors are installed in conduit. The length of the conduit inside the building substantially exceeds the maximum distance of 15' allowed by code. Equipment is in fair condition and consists of a 120/240-volt, 400-ampere, main circuit breaker switchboard.
- **Power Distribution System:** Service equipment supplies feeders to circuit breaker panelboards that are in fair condition.
- **Wiring:** Feeders and branch circuit wiring are installed in conduit and surface metal raceway. Conductors are type TW copper wire. Wiring is in fair condition.
- **Wiring Devices:** Original outlets are removed, blanked and replaced with surface outlets. Light switches are newer silent type. Receptacles are newer grounding type. Devices are functional and in fair condition.
- **Lighting:** Light fixture lamps consist of a mixture of incandescent and T-12 fluorescent that are not in compliance with current energy efficiency codes.
- **Fire Alarm:** The FCI make control panel is a non-addressable and provides floor annunciation only. Corridors are equipped with smoke detection, and heat detection is installed in most other rooms. Alarm initiation is by activation of automatic detection devices. Exit doors do not have code required manual pull stations. Notification devices are not correctly spaced, not visual and do not comply with current code requirements. Wiring is installed in surface metal raceway.
- **Telecommunications:** The main terminal consists of 66-type distribution blocks mounted on a plywood backboard. Distribution consists of Cat. 2 wiring from the terminal block to various telecommunications outlets located throughout the building. Wiring and components are in fair condition and are not in compliance with current standards for modern data telecommunications functions.
- **Emergency:** There is no illuminated exit identification or emergency egress lighting.
- **Recommendations:** The existing electrical power systems to include service, panels, receptacle outlets, switches and lighting circuitry are functional, essentially safe and free of hazard. Lighting should be upgraded to high efficiency newer fixtures and lamps for compliance with current energy code. Replace complete fire alarm with new addressable system and code compliant



devices. Install emergency egress and exit identification lighting. Replace telecommunications with Cat. 5-E system.

Mechanical Assessment

- **Description:** The heating in this building is by a heating hot water radiator system. The heating hot water piping is carbon steel and appears to be the original installation. This piping serving this building comes from the boiler system located in the Basement Mechanical Room of the building. The boiler is in poor condition and needs replacement. The heating hot water radiators appear to be in fair to good condition. New exhaust fans have been installed in the open area of the upper floor and route to the roof. These fans provide air circulation in the space.
- **Recommendations:** The boiler system that serves this building was installed in 1982 and is in need of replacement. The heating hot water radiators could be refurbished for re-use. Re-use of these radiators would help maintain the historical character of the building. New control valves are recommended to provide temperature control of the space. The heating hot water piping should be replaced, as it is probably near the end of its useful life. For ventilation, operable windows would provide adequate ventilation and meet current code requirements as long as the interior is not significantly partitioned. Exhaust fans will be required in interior areas such as restrooms, storage rooms, and the janitors closet for ventilation purposes.

Plumbing Assessment

- **Description:** Existing plumbing fixtures, when present, are in fair condition. Existing waste piping is cast iron. Existing domestic water piping is carbon steel and appears to be the original installation. The domestic water heaters are located in the first floor Men's and Women's restrooms. To provide freeze protection during this unoccupied time, the domestic water has been drained and shut-off at the building. The gas service to the building has been shut-off as well.



- **Recommendations:** Depending on building usage, the restrooms may need to be reconfigured to be in accordance with ADA requirements. This may change fixture layout. Retaining the existing plumbing fixtures would not add much to the historical value. New fixtures are recommended as the cost for new will probably be less than refurbishment costs. Fixtures should be ADA compliant to conform to current codes. New copper piping should be installed to replace existing domestic carbon steel piping since it is probably nearing the end of its useful life. We recommend replacing both water heaters due to the age of the heaters and the deleterious effects of intermittent use.

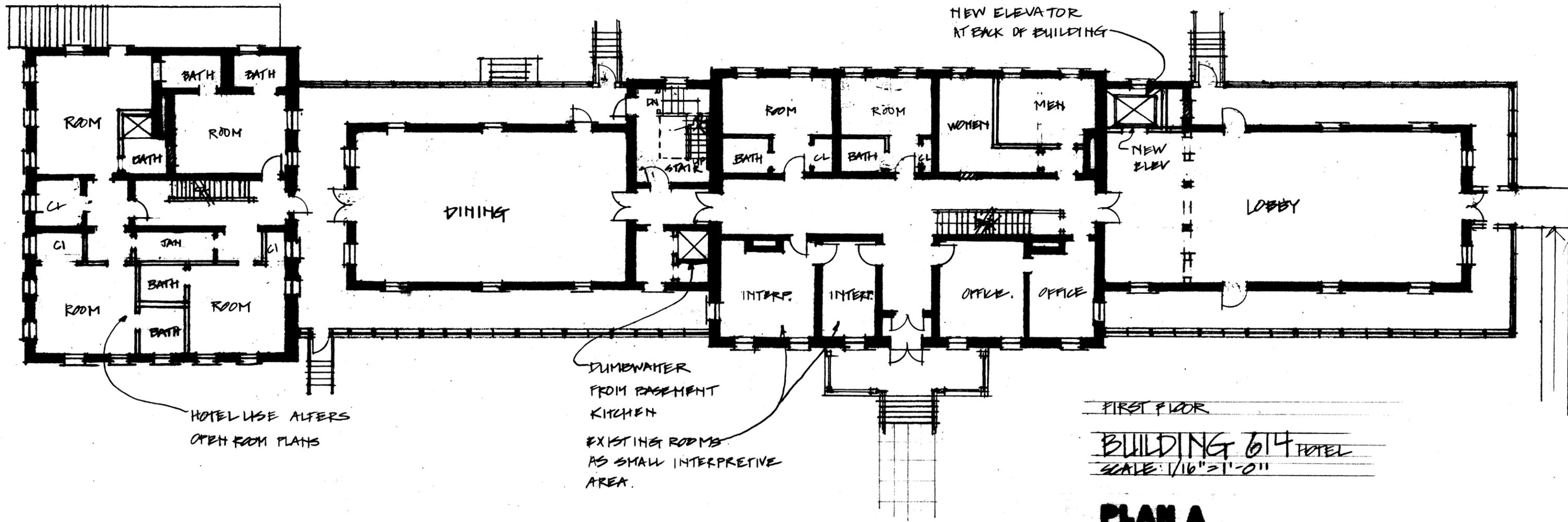
Task Two: Ultimate Treatment and Use

The Hospital (Building #614) is a good candidate for exterior restoration and limited interior restoration and rehabilitation according to the *Secretary of Interior's Standards*. It is an excellent example of a sanatorium from the beginning of the 20th century that is remarkably intact. Although the Annex has been relocated to the south end of the south porch it is still valuable, useable floor area and the building has retained much of its original character even if repairs subsequent to the relocation of the building were not well executed.

The *West Vancouver Barracks Reuse Plan* suggests that lodging (See Plan A) would be the preferred use of the spaces within the hospital and annex. The public presence of the building certainly lends itself to this kind of use and its varied spaces provide rooms for uses such as a café, meeting rooms, and a reception hall. The smaller rooms would be guest rooms. Unfortunately only about 30 guestrooms could be created in the Hospital and Annex. As a result, the success of a hotel in this building is tied to the inclusion of the Infantry Barracks (Building #607) and the Red Cross Service Club (Building #636) in the development scheme to provide additional guestrooms and full service dining facilities.

For any new use, ADA access and egress will need to be provided. The location and configuration of the main stair in the hospital presents challenges to its continued use without altering greatly the feeling of the hallway. An elevator and stair tower could be built to the west of the hospital in the original location of the Annex, recognizing the historic configuration of the buildings. At the very least, an elevator should be provided within the footprint of the building and existing stairs enclosed for egress. Retrofitting an elevator within the existing building envelope has the potential to greatly alter the existing roof shape, assuming it will provide access to all four floors.





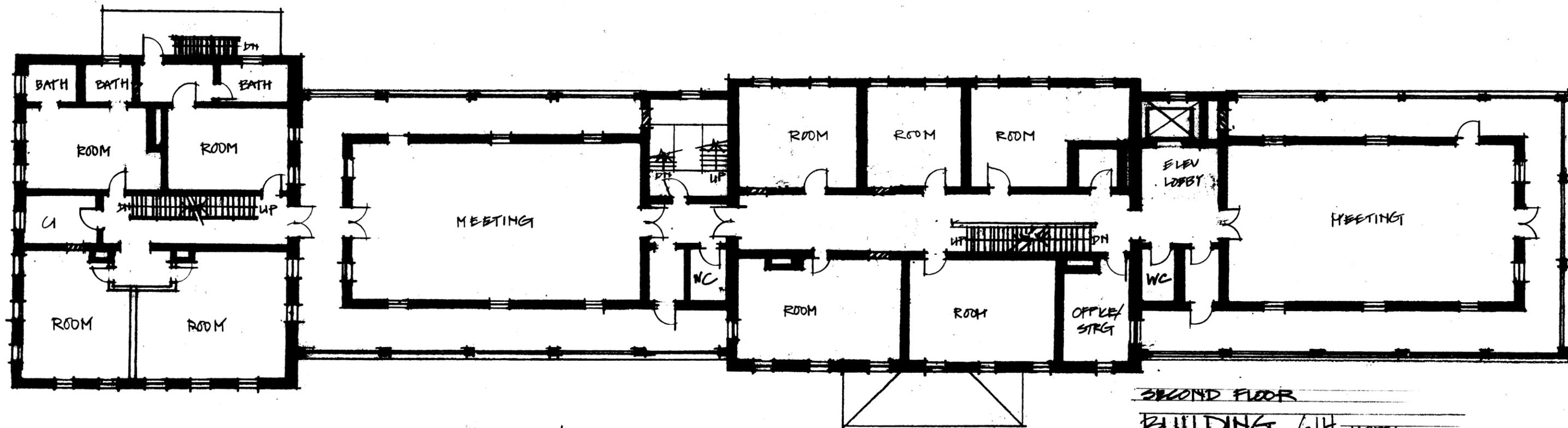
HOTEL USE ALTERS
OPEN ROOM PLANS

DUMBWATER
FROM BASEMENT
KITCHEN
EXISTING ROOMS
AS SMALL INTERPRETIVE
AREA.

NEW ELEVATOR
AT BACK OF BUILDING

FIRST FLOOR
BUILDING 614 HOTEL
SCALE 1/16" = 1'-0"

PLAN A



NOTE: 3rd FLOOR CAN
 ACCOMODATE 8 ROOMS.
 BASEMENT CAN HOUSE
 SUPPORT STALCS.

SECOND FLOOR
 BUILDING 614 HOTEL
 SCALE 1/16" = 1'-0"

The Class 'C' cost estimate for a hotel/lodging use for the year 2003 is \$205.19 per square foot. This would cover code compliance and interior changes required for a hospitality use.

Seismic analysis and retrofitting will be necessary for a masonry structure such as this. While the hospital at Fort Lewis offers a successful example of the adaptive reuse of a similar building, consideration of the impacts of retrofitting on the character, finishes, and historic fabric of this building should be given.

Exterior Character Defining Features (From Part One of the HSR)

- **Building Form, Shape, and Massing:** Main rectangular building with two flanking enclosed sun porches.
- **Roof Shape and Elements:** Gable roof with end returns, windowed dormers with classical pediment top, wood shingle siding, six-over-six double-hung windows and four-lite paired casement windows, corbelled chimney tops, metal roof vents.
- **Exterior Surfaces:** Common bond brick, vertical wood siding, louvered vents under windows.
- **Fenestration Pattern:** Main building has two-over two double-hung windows, concrete sills, arched brick lintels, side porches have sixteen-over-sixteen lite glazing with sliding middle panes, Annex at south elevation has six-lite transom over the door.
- **Porches:** Enclosed sun porches with thin chamfered wood posts with base and column, metal pipe railings, front porch has spiral pipe newel post, concrete stairs, tongue-and-groove wood flooring, shed roof.
- **Foundation Elements:** Wood and iron mesh foundation skirt, rusticated sandstone block.

Exterior Recommendations

- **Vehicular Circulation:** There is a lack of dedicated parking for this structure. More on-street parking will be needed with any new use, and the possibility of creating additional dedicated parking lots to the north and south of the building should be explored.
- **Pedestrian Circulation:** Concrete sidewalks need to be rebuilt and brought up to code. Ramps need to be provided at the front from Barnes Road to the front door.



- Site: The construction of an acoustic wall along I-5 should be considered to mitigate traffic noise and air pollution. Plantings located close to the building should be trimmed. Dead and dying plants should be removed and replaced. Site drainage needs to be modified to direct runoff away from the foundation. The concrete stairs should be re-built.
- Foundation: The stone needs to be cleaned. This should be done as part of a regular maintenance program.
- Walls: The painted brick and the loss of its weather face is a serious problem. The paint should be removed as a first step to the restoration of the historic character of the exterior. Further steps to mitigate the damage should be based on the advice of a masonry restoration specialist.
- Windows: The sandstone sills need to be cleaned and possible consolidated. The wood trim should be scraped and painted. Repair damaged windows.
- Doors: Refurbish existing historic doors. Replace flush doors with doors matching the originals. Where possible, retain original door hardware. Where necessary, replace the historic hardware with new accessible hardware that is appropriate to the style of the building.
- Trim: Replace damaged soffit boards and belly band and cap that are too deteriorated to be salvaged and refurbished.
- Roof, Gutters and Eaves: Replace gutter system and leaders. Replacing the asphalt shingle roof with the original material, slate, should be considered. All flashing should be replaced. Consider Removing the exit stair penthouses and providing egress by another means.
- Porches: Replace the damaged elements of the skirting and evaluate their effectiveness of skirting to keep animals out from the area below the porches. Evaluate the porches for structural and seismic stability. The floor, siding, columns, and sills need to be refurbished or replaced. Some mitigation is needed on the west side of the building to protect that side of the building from weather and pollution from I-5. An acoustical wall and some trees will help, but an acoustical engineer should be consulted.
- Entries: The stairs and railings need to be replaced and updated to comply with current codes. The front porch gutters and downspouts need to be replaced and the roofing material replaced. The columns need to be replaced and railings brought up to meet current codes.



- Dormers: Replace damaged and missing slate shingles and all flashing. Repair and refurbish existing windows.
- Miscellaneous: Place telephone, data and electrical services underground and bring into the building through the basement. Replace exterior light fixtures with fixtures that complement the historic character of the hospital. Remove flag holders, birdhouses, and other miscellaneous items. Surface-mounted conduit should be removed and relocated inside the building and the existing attachment locations repaired. A structural assessment of the chimneys and ventilators should be conducted.

Interior Character Defining Features (From Part One of the HSR, Kristin Baron)

- Floor Plan: Original floor plan very much intact, some unique rooms include the morgue and operating rooms in the basement, wood-paneled storage room in the attic.
- Original volume and proportions of rooms.
- Original ceiling height.
- Stairs: Wooden stairs with simple wooden balusters and trim.
- Moldings: Simple baseboard, picture railings, simple window sill in basement, wide chair rail in attic, no interior trim, only deep reveals around interior of windows, sloped sills.
- Interior Finishes: Plaster walls, decorative pressed tin ceilings, tongue-and-groove sun porch flooring, ceramic hexagonal tiles in front entrance, hardwood floors, black and white ceramic tile in bathrooms. Basement: wood flooring, black and white tiles in operating rooms, exposed brick and concrete walls. Attic rooms: horizontal wood paneling, interior walls of enclosed sun porches are the original exterior brick walls.
- Interior Doors and Windows: Five-panel doors with three-light transom, one-lite two-panel doors, six-lite transom over paired doors.
- Unique Fixtures or Appliances: Decorative metal radiators, decorative metal fireplace cover. Second floor ladies room contains wooden stalls, bathroom sinks and utilitarian wash sinks.



Interior Recommendations

- **General:** The interior would be best rehabilitated to allow for new uses of the building, while retaining existing finishes to the extent possible. The plaster, floors and pressed tin ceiling tile are unusually intact for a building of this age. In addition the terrazzo floors in the surgeries on the second floor should be retained. The attic space could be finished or left as is. For any new use an elevator and stairs would need to be added for increased accessibility and egress requirements.
- **Specific Space with Unique Treatment:** Room 117, the head surgeon's office, is in wonderful condition with the finishes and fireplace intact. It has the original coal-burning fireplace with a decorative summer cover and tile surround. The original fir wood floors are intact. The room should be retained and perhaps made into a small interpretive area for the hospital.
- **Floors:** Clean concrete floors, seal, or paint. Refurbish wood floor in Annex basement. Remove asbestos floor tile; consult hazardous materials consultant. Remove resilient floor tile and underlayment and cove base throughout first and second floor. Restore terrazzo floor and tile base in two rooms on second floor.
- **Walls:** Correct water infiltration problems. Remove paint from stone, brick, and concrete walls. Repair damaged plaster or gypsum wall board. Refinish hardwood floors. Remove resilient floor tile and vinyl cove base. Repair wood base and replace flooring with new sheet linoleum. Refurbish black and white tile at all locations. Fire separation requirements and the sensitive placement of walls must be researched, relating to stair enclosures. Strip and repaint or stain tongue and groove wainscot.
- **Ceiling:** Refurbish pressed tin ceiling tile, strip and repaint. Repair holes and joints. Repair plaster cracks.
- **Windows:** Refurbish existing windows. Remove non-contributing wood diverters, security bars, and roller shades. Replace broken glazing. Remove plywood. Repair or replace sash cords and weights. Refurbish sash, jambs, and sills.
- **Doors:** In general, the doors need minor refurbishment. Scrape and paint the doors and repair the joints that are separating. Replace the north and south doors to the attic with fire-rated doors. Refurbish door hardware. Replace non-original doors and modified doors with new doors to match original. Refurbish transoms to meet current codes and secure them in the closed position.
- **Stairs:** New handrail and railings to meet current codes.



- Miscellaneous: Remove contemporary light fixtures and replace with new fixtures appropriate to the historic character of the building. New fixtures should be placed within the module of the pressed tin ceiling. Refurbish ornamental cast iron ventilation grilles and radiators. Demolish bathroom stalls and plumbing fixtures, replace with new period-appropriate pieces. Demolish presentation boards and ceiling track. Surface-mounted conduit and other items should be removed and placed in the floor or wall cavities.

Task Three: Requirement for Treatment

Compliance with Codes

Uniform Building Code (UBC):

- Proposed Use: Lodging (guestrooms and public rooms).
- Occupancy Proposed: Mixed R-1 (multi-family) and A-3 (assembly).
- Construction Type: V-one hour (wood frame, one hour fire-rated). Fire rating is based on the installation of automatic fire sprinklers.
- Base Area / Stories Permitted: 10,500 S.F. / 3 stories.
 (+100%) 10,500 = 21,000 S.F. (multistory bonus)
 (+50%) 10,500 = 31,500 S.F. (separation on four sides estimated at 30 feet)
- Building Area: 22,228 S.F. for upper 3 stories over 7,028 S.F. basement.
- Occupancy Loads: Vary according to use.

Basement:	Storage / Mechanical (7,028 S.F.) 24 persons
Main Floor:	70% Lodging (5,582 S.F.) 30 persons
Main Floor:	30% Assembly (2,500 S.F.) 167 persons
Second Floor:	70% Lodging (5,582 S.F.) 30 persons
Second Floor:	30% Assembly (2,500 S.F.) 167 persons
Third Floor:	70% Lodging (5,582 S.F.) 30 persons
Third Floor:	30% Storage (2,500 S.F.) 9 persons
- Exits Required: 2 required; 2 provided.
- Upper Floor Exits: 2 required. Exit width varies according to occupancy load.
- Crawlspace Ventilation: Verify.
- Attic Ventilation: Verify.
- Stairs and Handrails: Upgrade as required to comply with current codes.
- Decks and Guardrails: Upgrade as required to comply with current codes.
- Plumbing: UBC Table 29-A.
 First and Second Floor: Separate restrooms on each floor with 3 W.C.'s and 3 lavatories minimum in each for assembly uses. Individual restrooms would be provided for the guestrooms.
- Structural: Needs structural assessment.



Americans with Disabilities Act (ADA):

- In general, ADA requires existing structures to be brought into compliance with the provisions of the current code. Chapter 9, Section 1113 of the Washington State Amendments to the UBC allows Building Officials some amount of discretion dealing with historic structures. There are a number of challenges to making this building accessible. The main floor is set about three above ground level, so ramps must be fairly long. An elevator must be installed to access the upper levels.

Uniform Mechanical Code (UMC):

- Mechanical: See mechanical assessment.

National Electrical Code (NEC):

- Electrical: See electrical assessment.
- Data: See electrical assessment.
- Security: No security system is present, however, provisions should be made for future installation.

National Fire Protection Association Standards (NFPA):

- Fire Protection System: Needs assessment; automatic fire sprinklers are not installed.

Washington State Energy Code (WSEC):

- In general, WSEC requires alterations to existing structures to comply with the provisions of the current code. Section 101.3.2.2 of the WSEC allows Building Officials some amount of discretion dealing with structures on the National Register of Historic Places. It should be relatively easy to bring this building into compliance, given that the interior generally lacks historic significance, and that the attic and the basement provide framing cavities for insulation. The existing windows, however, are contributing elements to the significance of the structure in the context of the West Barracks and should be rehabilitated.

Hazardous Materials:

- A complete survey of hazardous materials present in the building needs to be conducted prior to commencing any work. Of particular concern is the possible presence of lead paint and asbestos.

Functional requirements (program) suitability with Secretary of Interior's Standards

- Exterior: The Hospital (Building #614) has historic significance as an individual structure, with unique architectural elements and social roles within the Vancouver Barracks. It also has significance as a contributing part of a coherent ensemble of buildings. The proposed change of use from a Hospital to lodging



space has minimal impact on the historic character of the exterior. Necessary changes to existing porches, ramps and stairs, mechanical penetrations in the roof, and crawlspace skirting are to non-contributing elements, and should be undertaken in such a manner as to complement the historic character of the entire West Barracks. If

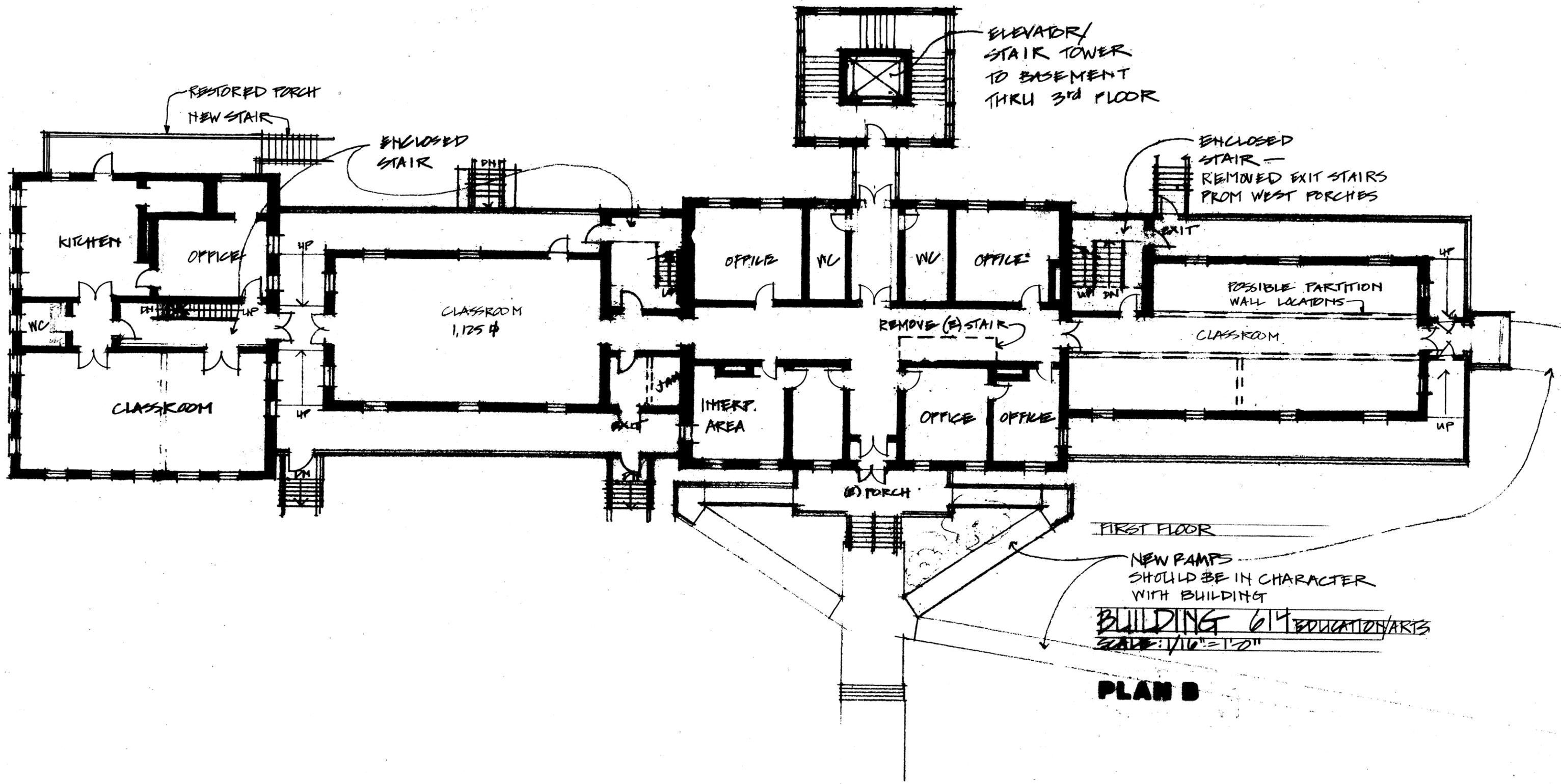
- **Interior:** The proposed change of use from a Hospital to lodging space presents some challenges to maintain the historic character of the interior. The four large rooms on the first and second floors should not be sub-divided into guestrooms. To do so would destroy their historic integrity. These spaces should be used for the public functions of the hotel, including conference rooms, meeting rooms, and a café. The existing stairs do not meet current codes, and bringing them into compliance will significantly alter their character and the character of the interior. Locating a new stair and elevator tower on the west side of the building where the annex once stood is one solution. Other locations within the footprint of the building present additional challenges.

Task Four: Alternative Treatments

This building would also be efficiently re-used as an educational facility (See Plan B). It would require approximately the same amount of alteration as an office use. The large open ward rooms would serve well as classrooms. Circulation could be diverted to the porches around the rooms if a class was going on, in order to maintain access between the Annex and the main building. The smaller ward rooms in the Annex would work well as smaller classrooms. The smaller rooms in the main building could be offices. As with the office use an elevator and interior enclosed stairs would need to be added.

The Class 'C' cost estimate for an arts/education use for the year 2003 is \$107.49 per square foot. This would cover code compliance and interior changes for a range of arts uses and media.





ELEVATOR/
STAIR TOWER
TO BASEMENT
THRU 3rd FLOOR

RESTORED PORCH
NEW STAIR

ENCLOSED
STAIR

ENCLOSED
STAIR -
REMOVED EXIT STAIRS
FROM WEST PORCHES

KITCHEN

OFFICE

CLASSROOM
1,125 ϕ

OFFICE

WC

WC

OFFICE

POSSIBLE PARTITION
WALL LOCATIONS

CLASSROOM

CLASSROOM

INTER.
AREA

OFFICE

OFFICE

REMOVE (A) STAIR

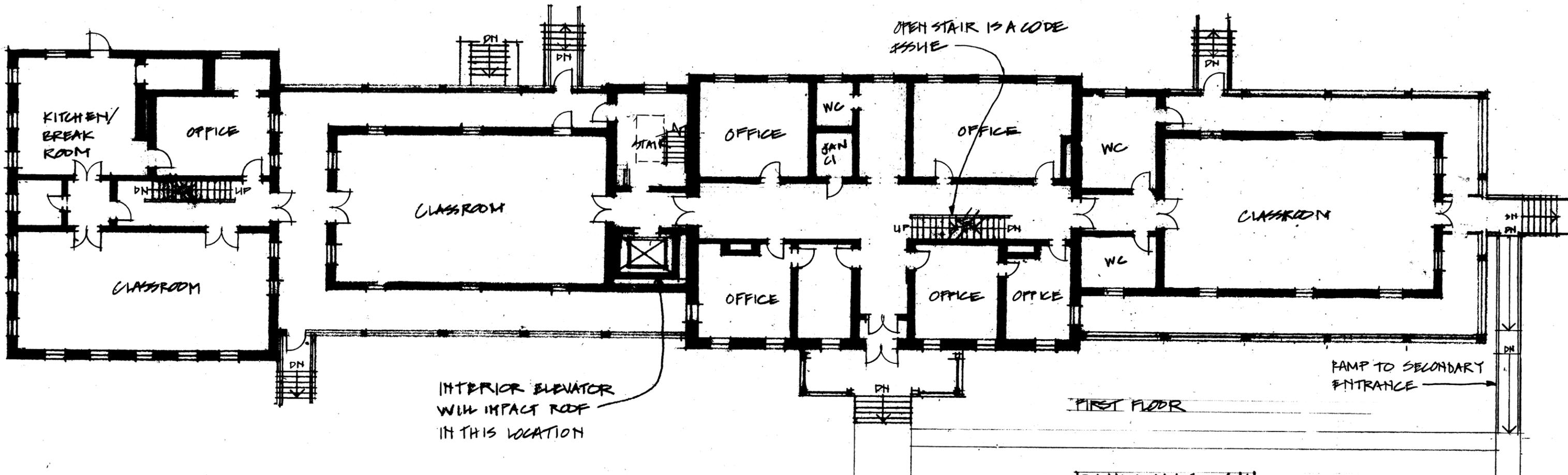
(B) PORCH

FIRST FLOOR

NEW PAMPS
SHOULD BE IN CHARACTER
WITH BUILDING

BUILDING 64 EDUCATION/ARTS
SCALE: 1/16" = 1'-0"

PLAN B



OPEN STAIR IS A CODE ISSUE

INTERIOR ELEVATOR WITH IMPACT ROOF IN THIS LOCATION

FIRST FLOOR

RAMP TO SECONDARY ENTRANCE

BUILDING 014
SCALE: 1/16" = 1'-0"